

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed September 21, 2006. The Examiner is thanked for the thorough examination of the present application, and the indication that claims 29 and 43 define allowable subject matter. Upon entry of the amendments in this response, claims 25, 27-30, and 39-46 remain pending. Claim 31-38 have been canceled. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Rejections under 35 U.S.C. 102

Claims 25, 27, 28, 30, 39-41 and 44-46 stand rejected under 35 U.S.C. 102(e) as allegedly anticipated by U.S. 6,939,812 of Broekaart et al.

Independent claims 25, 39, and 46 recite, respectively:

25. A planar insulating layer with contact openings on a substrate having device areas comprised of:

 a conducting layer having an anti-reflective coating on top surface and patterned to have open areas on said substrate;

 said planar insulating layer on said patterned conducting layer having said contact openings of varying depths to said device areas, said contact openings formed using a single masking and etching step;

 some of said contact openings extending down to and over an edge of said patterned conducting layer within said opening areas for forming low-resistance contacts to said edge of said patterned conducting layer, ***wherein at least two of said contact openings extending down to and over an edge of said patterned conducting layer within said opening areas are etched over said edge of said patterned conductive layer in said opening areas on opposite sides of said open areas to allow for more relaxed alignment tolerances.***

(Emphasis added)

39. An integrated circuit, comprising:

 a substrate;

 a first device and a second device overlying a part of the substrate, wherein the first device having a plurality of contact regions formed in the

substrate and the second device comprises a conductive layer having an overlying anti-reflective coating;

a first insulating layer overlying the substrate and the first and second device;

at least one first opening through the first insulating layer, exposing a top surface of one of the contact regions; and

at least one second opening in the first insulating layer, exposing an edge of the conductive layer having an overlying anti-reflective coating of the second device.

(Emphasis added)

46. An integrated circuit, comprising:

a substrate;

a first device overlying a first part of the substrate;

a second device overlying a second part of the substrate, wherein the second device comprises a conductive layer having an overlying anti-reflective coating;

at least one first contact connecting a top surface of the first device; and

at least one second contact connecting a sidewall of the conductive layer having the overlying anti-reflective coating of the second device.

(Emphasis added). These claims patently define over Broekaart for at least the reason that Broekaart fails to disclose at least the features emphasized above.

As shown in Fig. 3 of US 6,939,812, Broekaart et al. disclose conductors 3, 4, and 5 consisting of a capping layer 8 on top of a base metal portion 11. The capping layer 8 thereby provides the top surface portion 6 of the conductors 3, 4, and 5 (see col. 2, lines 39-41). In Fig. 3 of US 6,939,812, edge portions 11 of the conductors 3, 4, and 5 are also illustrated and an etch stop layer 7 is formed over the conductors 3, 4, and 5. A via 15 overlies the conductor 5, exposing a portion of the top surface 6 portion 6 of the conductor 4 and the etch stop layer 12 adjacent thereto (see Fig. 3). However, the via 15 illustrated in Fig. 3 of the US 6,939,812 fails to expose or each edge portion of the conductor 4, as expressly recited in independent claims 25 and 39. Therefore, Broekaart et al. did fail to

disclose or teach at least the above features as respectively recited in the above independent claims 25 and 39 of the present application and the rejections of those claims should be withdrawn. In addition, Broekaart et al. also fail to disclose or teach at least the claimed feature of "contact connecting a sidewall of the conductive layer having the overlying anti-reflective coating of the second device," as recited in independent claim 46 of the present application, since no figures illustrate such structure.

Thus, Applicant respectfully asserts that the rejections of the independent claims 25, 39, and 46 are improper and should be withdrawn. Insofar as the remaining claims depend from either claim 25, 39, or 46, all pending claims are in condition for allowance.

No fee is believed to be due in connection with this Amendment and Response to Office Action. If, however, any fee is deemed to be payable, you are hereby authorized to charge any such fee to Deposit Account No. 20-0778.

Respectfully submitted,



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